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SPARK PLUG MOUNTED THICK FILM STRAIN GAUGE

ABSTRACT OF THE DISCLOSURE

A thick film resistor strain gauge is applied to a stainless steel shell portion of a spark plug. There are two preferable ways of applying a thick film resistor to the metal shell. In a first embodiment, the thick film resistor may be directly printed on to the shell portion with special screen printing equipment. In a second embodiment, the thick film resistor is printed and applied as a decal to the shell portion. The thick film resistors may be included in a quarter, a half, or a full wheatstone bridge strain gauge circuit. One of two embodiments of an automatic drift compensating circuit is used to determine the change in resistance experienced by the thick film resistors affixed to the spark plug. Either one of the automatic drift compensation circuits output a voltage signal which is proportional to the pressure changes occurring inside the engine cylinder into which the spark plug is threaded.